EPA

A Citizen's Guide to Reducing Toxic Risks

Putting the Toxic Release Inventory to Work!

How the Toxic Release Inventory can help you!

EPA Region 9 has prepared this brochure to help community groups in Arizona, California, Hawaii and Nevada access the Toxic Release Inventory and use the information to help make their neighborhoods safer and cleaner. The Toxic Release Inventory can give you information about potentially toxic chemicals and their use in your area. This information can be used as a tool to identify and reduce harmful pollution.

Contents

Why Congress passed the Community Right-to-Know Law

In 1984, a lethal gas leaked from a Union Carbide pesticide plant in Bhopal, India, and nearly 6,500 lives were lost as a result. Nine months later, a sister plant in West Virginia had a potentially dangerous release of a toxic pesticide. No lives were lost, but there was growing recognition that toxic chemical releases, both routine and accidental, pose risks to public health. With the accidents at Bhopal and West Virginia on everyone's mind, Congress enacted the Emergency Planning and Community Right-to-Know Act (EPCRA).[1]

Hailed as one of the most potent pieces of environmental legislation in 20 years, the Right-to-Know Act's primary purpose is to inform communities and citizens of chemical hazards. The Act was written with individual citizens in mind, and was based on the principle that the more people know, the more effectively they can improve the health and safety of their communities. The law requires businesses to report the locations and quantities of chemicals stored on site and helps communities prepare for chemical spills and similar emergencies. The Right-to- Know Act also requires certain manufacturers to report releases to the environment of about 650 toxic chemicals and chemical categories. This information is collected into a national and publicly available database known as the Toxic Release Inventory (TRI).

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[1] The Act is also known as Title III of SARA (the Superfund Amendments and Reauthorization Act of 1986).

Using toxic release data – Communities in action!

Citizens groups have used the Toxic Release Inventory to raise awareness, reduce toxic releases, and make their communities cleaner and safer. Some of the ways people have used toxic release data include:

◆ *Educating community members on toxic risks*

◆ *Negotiating with facilities on specific plant practices*

◆ *Participating on citizen advisory panels*

◆ *Conducting "good neighbor" campaigns to lobby companies to reduce pollution*

◆ *Integrating socio-economic and toxic release data to analyze environmental justice issues*

◆ *Reviewing pollution prevention plans of individual companies*

◆ *Suing facilities that do not file toxic release information*

◆ *Creating risk assessment tools to identify priority pollutants*

◆ *Promoting international toxic release inventories*

On the following pages are examples of the creative and effective ways community groups have used the Toxic Release Inventory.

Direct Negotiations

In the city of Richmond, California, community members were concerned about toxic releases from several oil refineries and other large industrial facilities. The West County Toxics Coalition, a local environmental group, joined with Communities for a Better Environment, a statewide environmental group, to investigate industrial polluters in Richmond. Using the Toxic Release Inventory and other databases, they published a report entitled *Richmond at Risk*, which identified the 20 largest industrial polluters in the area and named the Chevron Oil Refinery the number one polluter. The report served to initiate discussions between Chevron, the West County Toxics Coalition, and other community and environmental groups. As a result of the meetings, the company agreed in 1994 to close down older portions of the plant and install pollution prevention equipment to achieve zero net emissions on its reformulated fuel project.

For more information, contact:

West County Toxics Coalition
1019 Macdonald Avenue
Richmond, CA 94801
(510) 232-3427

Communities for a Better Environment
500 Howard Street, Suite 506
San Francisco, CA 94105
(415) 243-8373
e-mail: cbelegal@igc.apc.org

Communities for a Better Environment
605 W. Olympic Blvd., Suite 850
Los Angeles, CA 90015
(213) 486-5114
e-mail: cbela@igc.apc.org
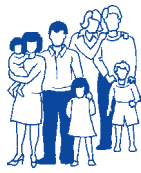
Good Neighbor Campaigns

Concerned about pollution from high-tech industries located in the Silicon Valley, California, the Silicon Valley Toxics Coalition compiled toxic release data for the electronics industry in Santa Clara County. The group discovered that IBM was the nation's largest discharger of Chlorofluorocarbons (CFCs), a cleaning solvent thought to be less toxic to humans than other solvents, but which destroys the protective ozone layer above the earth and allows harmful ultraviolet radiation to enter the atmosphere. The Silicon Valley Toxics Coalition asked IBM to sign a good neighbor agreement with a timetable for phasing out use of CFCs. To garner public support, the Coalition held press events and a large Earth Day rally. IBM agreed to the good neighbor conditions and committed to phasing out its use of CFCs and replacing them with soap and water.

For more information, contact:

Silicon Valley Toxics Coalition
760 North First Street
San Jose, CA 95112
(408) 287-6707
e-mail: tsmith@igc.org

Environmental Justice Issues

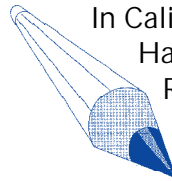The Asian Pacific Environmental Network (APEN) works with Asian and Pacific Islander communities living in the Bay Area of California. One of the group's objectives is to promote environmental justice, to assure that communities are not exposed to higher environmental risks as a result of poverty or ethnicity. Focusing on Contra Costa County, the group created a series of maps that integrated toxic release and demographic data through geographic information systems (GIS).

The maps show that many poor Asian and Pacific Islander communities live in toxic hot spots. The Network uses the maps as a powerful visual tool to raise awareness among community members about their environment, and to raise awareness outside the community about environmental justice issues. The group is currently in the process of expanding its mapping work. Maps will be developed for other Bay Area counties and will include additional environmental, health, and demographic information. This mapping work will help the group target its next community project.

For more information, contact:

Asian Pacific Environmental Network
310 8th Street, Suite 309
Oakland, CA 94607
(510) 834-8920
e-mail: apen@igc.apc.org

Review of Pollution Prevention Plans

In California, a state law called the Hazardous Waste Source Reduction and Management Review (SB-14) mandates that facilities develop pollution prevention plans. These plans identify opportunities for reducing pollution and must be made available to the public. For the last several years, the state has provided funds and technical assistance to community groups to evaluate these plans.

One of these groups, Mothers of East Los Angeles of Santa Isabel, used the Toxic Release Inventory to compare toxic release estimates contained in the pollution prevention plans with actual releases to the environment. Activities like this help foster constructive dialogue between community groups, industries, regulators, and the general public, and ultimately can lead to new pollution prevention practices and commitments.

For more information about SB-14, you can get the "Citizen's Guide to the Hazardous Waste Source Reduction and Management Review Act" that is published by the California Department of Toxic Substances Control.

For more information, contact:

Mothers of East L.A. of Santa Isabel
924 South Mott Street
Los Angeles, CA 90023
(213) 269-9898

Kim Wilhelm
Pollution Prevention Program
California Department of Toxic Substances Control
P.O. Box 806
Sacramento, CA 95812
(916) 322-3670

Citizen Lawsuits

Under the Emergency Planning and Community Right-to-Know Act, citizens have the right to sue facilities that are required to report their toxic releases to the Toxic Release Inventory and fail to do so. *Don't Waste Arizona* and *Communities for a Better Environment* have exercised this right, and lawsuit settlements of these cases have led to reductions in toxic pollution.

In 1996, *Don't Waste Arizona* filed about 30 lawsuits against facilities for not submitting information on their toxic releases. In the settlement of these lawsuits, facilities signed legal agreements to adopt pollution prevention measures that resulted in significant reductions in toxic chemical releases.

In 1994, *Communities for a Better Environment* conducted a campaign to reduce the release of chemicals that destroy the ozone layer, the earth's upper atmosphere layer that acts as a shield to keep out ultraviolet radiation. The group targeted 16 facilities throughout California that failed to submit information on their toxic releases of ozone depleting chemicals. In all but one of the settlements, affected industries agreed to phase out the chemicals and to donate funds to local community or environmental groups.

For more information, contact:

Don't Waste Arizona
6205 S. 12th Street
Phoenix, AZ 85040
(602) 268-6110
e-mail: dwaz@primenet.com

To contact *Communities for a Better Environment,* see page 3.

Risk Assessment Tools

The Toxic Release Inventory alone does not have the capability to compare the risks of different chemical releases. In order to rank chemical hazards, raw data on toxic releases must be combined with environmental and human health data. The Environmental Defense Fund is in the process of linking toxic release data with toxicological studies in an on-line program called the Environmental Scorecard. The first version was released in early 1998 and focused on the human health impacts of toxic chemicals. This project ranked chemical releases by equivalency factors, taking into account toxicity and exposure potential. In subsequent versions, the group plans on overlaying health risk estimates with census data, allowing for analysis of geographic "hot spots," environmental justice concerns, or site-specific issues. Risk assessment tools like the Scorecard apply a mix of science and best judgement to help communities identify priority pollutants and develop risk-based pollution reduction strategies.

For more information, contact:

Environmental Defense Fund
5655 College Avenue, Suite 304
Oakland, CA 94618
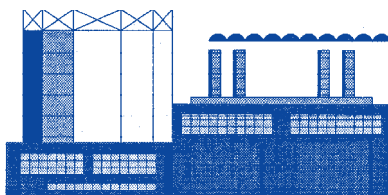(510) 658-8008
e-mail: kenl@edf.org

International Right-to-Know

The Toxic Release Inventory enhances the ability of people around the world to monitor environmental releases using the same yardstick. Arizona Toxics Information (ATI) works with communities living on the border between the U.S. and Mexico to raise awareness of a host of community right-to-know issues. ATI has participated in the formation of international right-to-know networks in Europe and Latin America, and has developed bilingual informational materials on pollutants to facilitate public participation and promote pollution prevention. In addition, ATI is using the Toxic Release Inventory program as a component in the development of integrated databases, such as the "Hazardous Materials References List for the U.S.-Mexico Border." The movement to develop international databases on chemical releases stems from the 1992 Earth Summit, which called for nations to establish pollutant registries. Currently, Canada and the United Kingdom have on-line databases and other countries have release inventories that should be available soon on the Internet.

For more information, contact:

Arizona Toxics Information
P.O. Box 1896
Bisbee, AZ 85603
(520) 432-5374
e-mail: aztoxic@primenet.com

Toxic Release Inventory – What it does and doesn't do!

The Toxic Release Inventory database includes information on the following:

- ◆ *fugitive releases to air*
- ◆ *stack air emissions*
- ◆ *releases to water*
- ◆ *underground injections*
- ◆ *on-site releases to land*
- ◆ *transfer of chemicals off-site*
- ◆ *wastes treated on-site*
- ◆ *pollution prevention activities*
- ◆ *chemical recycling activities*

The Toxic Release Inventory provides the first comprehensive overview of toxic chemical pollution from manufacturing and federal facilities in the United States. Getting this information and making it public has had a significant effect on reducing toxic releases. Between 1988 and 1995, facilities covered by the law reduced their reported releases by 46%. Chemical companies, environmental groups, communities, researchers, and government agencies have used toxic release data to identify pollution prevention possibilities and reduce toxic pollution. The Toxic Release Inventory illustrates the power of information and public disclosure.

It is important to emphasize that the Toxic Release Inventory is not a complete inventory of all toxic releases. Only facilities that use large amounts of toxic chemicals and employ a minimum of 10 people need to report. Many other potentially significant sources, such as airports, warehouses, and auto repair shops, are not currently included in the database. When the program was first established, there were about 300 chemicals in the toxic release inventory.

A provision in the law allowed the list to be modified as appropriate. Accordingly, many changes have been made over the years. Most significantly, between 1994 and 1995, the list of reportable chemicals and chemical categories doubled to about 650.

The program was recently expanded to cover seven new industry sectors: metal mining, coal mining, electricity generation, commercial hazardous waste treatment, chemicals and allied product-wholesale, petroleum bulk terminals and plants-wholesale, and solvent recovery services. This expansion is effective in 1998, and the first reports will be due July 1, 1999.

A plant, factory, or other facility must report to the Toxic Release Inventory if it meets the following criteria:

☑ Its manufacturing operations are included in Standard Industrial Classification (SIC) codes 20 through 39 as well as the 7 newly added industries (this criterion does not apply to federal facilities).

☑ It has 10 or more full-time employees (or the equivalent of 20,000 hours per year).

☑ It manufactures, imports, processes, or otherwise uses any of the listed toxic chemicals in amounts greater than the "threshold" quantities. For *manufacturing*, *importing*, or *processing*, the threshold quantity is **25,000 pounds** per toxic chemical or category over the calendar year. For *otherwise using* any of the listed toxic chemicals (without incorporating it into any product or producing it at the facility), the threshold quantity is **10,000 pounds** per toxic chemical or category over the calendar year.

How you can access the Toxic Release Inventory

The Toxic Release Inventory is only valuable if people can access and use the information. That's why EPA makes the data available in a variety of formats and at a broad range of public facilities. Toxic Release Inventory products have been distributed to over 4,000 locations, including public libraries. You can access the data through the Internet, CD-ROM or diskettes, and hard copy reports.

On-line access: Envirofacts & RTK NET

The Internet is one of the easiest ways to use the database. There are two excellent sites on the Internet that provide direct access to the Toxic Release Inventory database, and allow users to find information on specific facilities or areas:
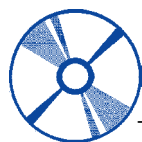
Envirofacts and RTK NET.

EPA created the Envirofacts Warehouse (located at http://www.epa.gov/enviro) to provide the public with direct access to the wealth of information in its databases. Currently, Envirofacts provides access to information on toxic releases, Superfund sites, hazardous waste handlers, discharges to water, and air releases. RTK NET (at http://rtk.net) is a site maintained by two nonprofits: OMB Watch and the Unison Institute. RTK NET contains information from multiple environmental databases. Both programs are user-friendly databases that provide links to various chemical data fact sheets.

These databases can be searched by facility, location, chemical, Standard Industrial Classification code, and other variables. For example, if you know the name of the facility, you can retrieve

information about releases of toxic chemicals from that facility. You can also look at releases in your city, county, zip code, or state. Some users do a deeper analysis, looking at releases of particular chemicals or from different types of industries. If you would like to learn more about how to use Internet sites, there are instructions for using Envirofacts and RTK NET in the Appendix of this brochure.

CD-ROM

The entire Toxic Release Inventory database is published by EPA on CD-ROM. The CD-ROM provides flexibility to do advanced searches and to manipulate the data, and is geared for the more advanced user. RTK-NET and Envirofacts have more limited capability, but are easier to use. In addition to data on chemical releases, the two-disc set contains Chemical Substance Fact Sheets that provide reference material on the health and environmental effects of listed chemicals. The software has the capability to search data by facility, location, chemical, industrial code, as well as many other access points. Other features allow flexibility in printing standard and customized reports, data down loading, and calculating releases for search sets.

Nonprofit groups (including community groups, educational institutions, and government agencies) can obtain the discs at no cost from the following two sources:

Toxic Release Inventory User Support Line
Phone: (202) 260-1531

National Center for Environmental Publications and Information
Phone: (800) 490-9198

For-profit groups can purchase the CD-ROM for $45 from:

National Technical Information Service
Phone: (800) 553-6847 or (703) 605-6000

Diskettes

Selected Toxic Release Inventory information is available on diskettes in dBase. For each state, one or more diskettes contain the most frequently used Toxic Release Inventory data, such as the names, locations, and contacts for reporting facilities; toxic releases to air, land, water, and underground injection wells; and total chemical transfers to off-site locations. A diskette with reports for federal facilities nationwide is also available. The diskettes are available at no cost through EPA's Toxic Release Inventory web site:

http://www.epa.gov/opptintr/tri (see *Accessing TRI data*).

The diskettes are also sold through the Government Printing Office at (888) 293-6498.

Annual Reports

Each year, EPA publishes reports which analyze the Toxic Release Inventory data. The reports contain interesting information on national trends of chemical releases, where they are going, and how wastes are managed. State fact sheets identifying the top polluters in each state are also available. The report, which is free to the public, can be ordered through EPA's hotline at (800) 535-0202. It can also be downloaded from the Toxic Release Inventory Homepage:

http://www.epa.gov/opptintr/tri

Resources in your community

Toxic Release Inventory data is the first link to discovering which chemicals being manufactured, released, or transferred in your community pose a threat to human health and the environment. This information alone does not indicate the risks that these chemicals pose to human health and the environment. Small releases of highly toxic chemicals may be a greater risk than very large releases of less toxic chemicals. Toxic Release Inventory data must be combined with other information on human health and the environment. Lastly, all this information must be put to use to make your community cleaner and safer.

There are numerous resources available to help you access, analyze and use toxic release data to make your neighborhood safer and cleaner. You can:

➤ Network with neighbors, community and environmental groups

Many groups with an environmental or community health focus are knowledgeable about the Toxic Release Inventory. These organizations may be able to assist you with your personal concerns about health issues, or they may be able to refer you to a particular source. Many of the larger organizations have local chapters and active grassroots groups.
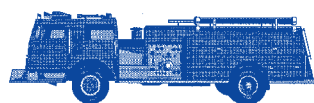
Networking with others is a good way to exchange information, participate in meetings with officials, experts, and company representatives, and plan activities that address your concerns. The more people involved, the more attention, interest, and action your concern will likely receive.

➤ Go to your local library

The Toxic Release Inventory has been distributed in one or more formats to over 3,000 public libraries and Federal depository libraries across the country. Libraries can also be an invaluable source for other information about chemicals and their health and environmental effects. Ask your local librarian to assist you in identifying community resources which can provide additional assistance.

➤ Identify local safety and public health agencies

These groups can help you evaluate chemical release data and identify additional information. Most counties have a public health agency staffed by one or more doctors, including a county health officer. Some areas have poison control centers with toxicologists and other staff who may be of some assistance. If you have difficulty identifying appropriate agencies in your area, call the local hospital or fire department for a referral.

Fire departments are a good source of information about the hazardous chemicals used by facilities within their jurisdiction. Since fire departments are often the first to respond to a chemical emergency, they receive materials safety data sheets (MSDS) or lists of MSDS chemicals and hazardous chemical inventory forms that provide information about the properties and effects of a specific chemical.

➤ Locate the Local Emergency Planning Committee (LEPC)

Local Emergency Planning Committees plan for emergency action in the event of hazardous chemical spills and similar incidents. They include representatives of environmental and transportation agencies, fire fighters, hospitals, the media, community groups and others.

➤ Call the facility

Each business or facility that reports chemical releases to the Toxic Release Inventory is required to designate an individual to serve as the public contact for inquiries. The name and phone number for the contact are included on the actual reporting form (Form R) submitted by the facility.

➤ Contact the Agency for Toxic Substances and Disease Registry (ATSDR)

The ATSDR is the leading federal public health agency concerned with risks resulting from chemical exposure. The ATSDR makes information on the health effects of hazardous substances available to the public, conducts health assessments, and sponsors research. It publishes Toxicological Profiles that characterize health effects information for specific chemicals. ATSDR maintains contacts with state and local health agencies throughout the U.S. For more information, call ATSDR at (404) 639-0727. The ATSDR Homepage is at:

http://atsdr1.atsdr.cdc.gov:8080/atsdrhome.html

Getting help from EPA

EPA can help answer questions about community right-to-know and get you the information you need. Below are contact telephone numbers and Internet sites for EPA.

➤ EPA Region 9

The EPA Region 9 office covers Arizona, California, Hawaii, Nevada, Guam, and the Marianas Islands. If you have questions on the Toxic Release Inventory, contact:

EPA Region 9
Toxic Release Inventory Program
75 Hawthorne Street, CMD-4-2
San Francisco, CA 94105
Phone: (415) 744-1087

➤ EPA Headquarters

For questions about Toxic Release Inventory data, copies of reports, CD-ROMS, and other information products, call the Toxic Release Inventory User Support Line at (202) 260-1531. Requests may be faxed to (202) 401-2347. You may also contact Toxic Release Inventory user-support by e-mail:

tri.us@epamail.epa.gov

For questions about the Emergency Planning and Community Right-to-Know Act (EPCRA), contact the EPCRA Hotline at (800) 535-0202.

➤ Internet Sites

EPA's Homepage: http://www.epa.gov

EPA's Region 9 Homepage:
http://www.epa.gov/region09

Toxic Release Inventory's Homepage:
http://www.epa.gov/opptintr/tri

Envirofacts:
http://www.epa.gov/enviro

Chemical data fact sheets:
http://www.epa.gov/chemfact

Appendix: Using the Internet to access toxic release data

Below are step-by-step instructions for retrieving Toxic Release Inventory data through two different Internet sites: Envirofacts and RTK NET. The databases can be searched by facility, location, type of industry, chemical, and other variables. Though these instructions focus on how to access toxic release data, Envirofacts and RTK NET provide information on a wide variety of environmental and socio-economic issues.

Please note that both sites are regularly being revised and improved to increase user access and provide more information to the public. As such, the information provided below may be outdated.

Envirofacts
The Envirofacts Warehouse can be accessed through EPA's Homepage:

http://www.epa.gov

The direct address is:

http://www.epa.gov/enviro

Once at the Envirofacts Homepage, click on "Generate Reports from Data," then on the line for the "Toxic Release Inventory." At this point there are several search strategies that you may employ, depending on the type of information that you want to obtain.

The TRI Query retrieves data in Envirofacts for facilities reporting chemical releases. Your query returns facility information, as well as chemical reports that tabulate air emissions, surface water discharges, releases to land, underground injections, and transfers to off-site locations. You can narrow your search by selecting options including facility name, geographic location, type of industry (through its Standard Industrial Classification) and chemical names.

➤ Facility Search

To search for information about a particular facilty, type the name or the applicable ID number of the facility in the appropriate box. You may also need to try several potential versions of the name if your initial search is not successful. It is a good idea to limit your search to a particular geographic area. This will speed up your search considerably.

After entering the search parameters, click on the "Begin Search" button at the bottom of the page to submit your search. The system will then search the database for information on that particular facility, and give you a screen with all names it matched in the database. Select the facility you want by clicking on the facility ID, and the system will display a chart of emissions reported to the Toxic Release Inventory. Subsequent screens also give you the opportunity to link to other sources of regulatory information (such as water and air permits) for the facility.
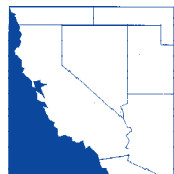
➤ Geographic Search

You may also search for facilities in a particular area that report to the Toxic Release Inventory. Starting at the TRI Queries screen, simply scroll down to the "Geographic Search" section and enter appropriate geographic parameters. Narrow the parameters down as much as possible, since large searches can take a lot of time and memory. This search will generate a list of reporters within the geographic area that you specified. Again, to see their reported emissions, select the facility you wish to investigate by clicking on its ID number.

➤ SIC or Chemical Search

These are options that allow you to further limit the scope of your search to specific types of industries or chemicals.

➤ Maps On Demand

The Envirofacts database can generate maps for you that overlay information on facilities in the Toxic Release Inventory with demographic and socio-economic data. It is particularly useful for groups interested in exploring relationships between pollution, race, income, geography, or other factors.

RTK NET

RTK NET is managed by two nonprofit organizations, the Unison Institute and OMB Watch. The site address of RTK NET is:

http://rtk.net

Once there, click on the "Databases" line, then "Environmental Databases." At this point, you can either search solely the Toxic Release Inventory database, or all databases at once.
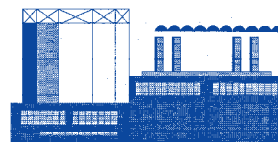
Please note that * is a wildcard in RTK NET. If you know a portion but not the exact or full name of the company, city, or other variable, you should use the wildcard. For example, let's say you know the company has the word "Widget" in its name. By entering *Widget*, you will receive a list of all companies that have Widget anywhere in their name.

➤ TRI Standard Reports

To search solely the Toxic Release Inventory database, click on "TRI." At this point, you have five different options: Area, Facility, Industry, Parent, Off-Site Transfers. The first three are self-explanatory, and function more or less the same as their counterparts in Envirofacts. Click on the icon of your choice, and fill in the search parameters. The last two options – Parent Company and Off-Site Transfers – allow you to do some unique searches not currently available on Envirofacts. The Parent Company option allows you to search for all facilities reporting to the Toxic Release Inventory that are owned by a single parent company. The Off-Site Transfers option allows you to investigate how much toxic waste reported in the Toxic Release Inventory is received by waste disposal facilities. (Note: Hazardous waste treatment facilities were recently added to the list of industries that must report to the Toxic Release Inventory. In 1998, these facilities will start reporting their toxic releases.)

➤ Master Standard Reports

This is an experimental program for searching all of RTK NET's environmental facility based databases, including the Toxic Release Inventory, at the same time. It currently produces a limited set of data for each facility. Once you have found out what is available by using this program, you can use the individual Standard Reports or Form Queries for each database to get more detailed data.

For specific facilities, geographic areas or industries, you can search each of the following databases:

- ◆ ARIP (Survey of major accidental releases)
- ◆ BRS (RCRA hazardous waste generators and receivers)
- ◆ CERCLIS (Potential and actual Superfund sites)
- ◆ CUS (Chemical producers)
- ◆ DOCKET (Civil court cases)
- ◆ ERNS (Accidental releases and spills)
- ◆ FINDS (EPA's master facility list)
- ◆ NPL (Listed Superfund sites)
- ◆ NPRI (Canadian National Pollutant Release Inventory)
- ◆ PCS (Water permits)
- ◆ RODS (Decisions about Superfund sites)
- ◆ SETS (Potentially Responsible Parties for CERCLA sites)
- ◆ TRI (Releases and transfers of toxics from manufacturers)

U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105